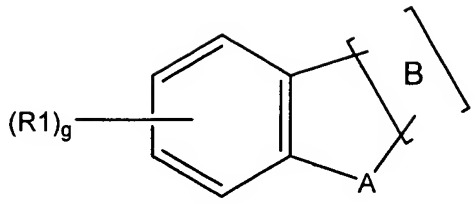
What is claimed is:

1. A compound of formula I,



I

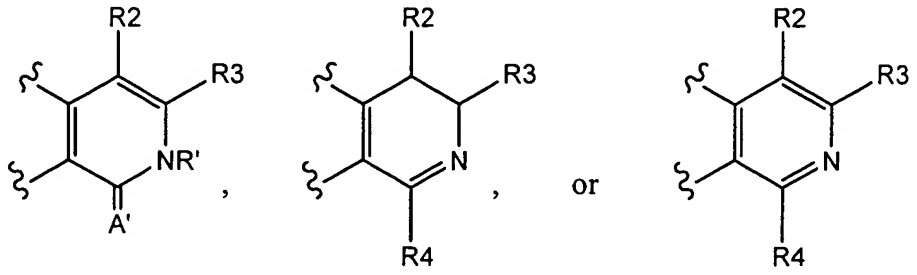
and pharmaceutically acceptable salts thereof, wherein

A is NR, O or S;

R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl;

g is 0, 1, 2, 3, or 4; and

B is a ring forming a fused ring system with the ring containing A and is selected from;



wherein A′ is as described above for A and NR′ is as described above for NR, R1, R2, R3 and R4 are independently selected from:

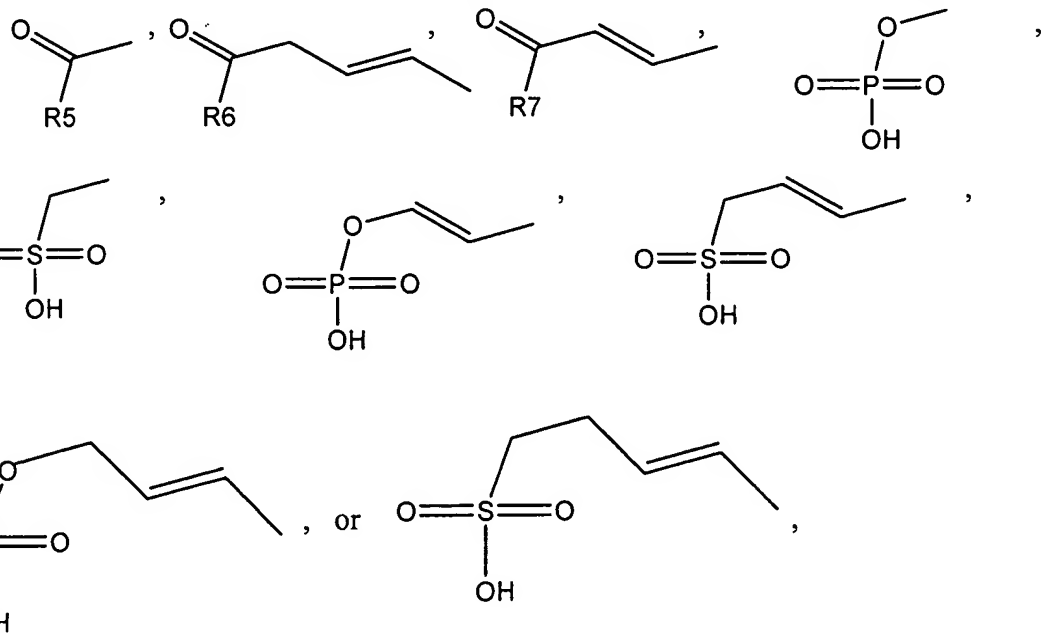
(i) hydrogen, C_1 to C_5 alkyl, OH, NH_2, C_1 to C_5 alkylamino, di(C_1 to C_5 alkyl)amino, C_1 to C_5 alkylcarbonyl, C_1 to C_5 alkyloxycarbonyl, C_1 to C_5 alkylcarbonyloxy, carboxyl, C_1 to C_5 alkyl phosphonate, C_1 to C_5 alkenyl

phosphonate, C_1 to C_5 alkyl phosphate, C_1 to C_5 alkenyl phosphate, C_1 to C_5 alkyl sulfonate, C_1 to C_5 alkenyl sulfonate, halo, halo(C_1 to C_5)alkyl, amino(C_1 to C_5)alkyl, hydroxyl(C_1 to C_5)alkyl, (C_1 to C_5)alkoxyl) C_1 to C_5 alkyl, NO_2, C_1 to C_5 alkylthio, SO_3H, PO_4, PO_3H, NH_4, C_2 to C_5 alkenyl, C_2 to C_5 alkenyloxy, C_2 to C_4 alkenylamino, di(C_2 to C_5 alkenylcarbonyl), C_2 to $C5_4$ alkenyloxycarbonyl, C_2 to C_4 alkylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkenyl, hydroxy(C_2 to C_5)alkenyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkenyl, C_2 to C_5 alkenylthio, C_2 to C_4 alkynyl, C_2 to C_5 alkynyloxy, C_2 to C_5 alkynylamino, di(C_2 to C_5 alkynyl)amino, C_2 to C_5 alkynylcarbonyl, C_2 to C_5 alkynyloxycarbonyl, C_2 to C_5 alkynylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkynyl, hydroxy(C_2 to C_5)alkynyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkynyl;

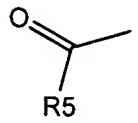
(ii) C_1 to C_5 alkoxy; and

(iii) aryl and arylalkyl.

2. A compound of formula I according to claim 1, wherein R1 represents a residue of the formula



wherein R5, R6 and R7 are independently selected from H, OH, NR_2, NR_3, and R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl.

3. A compound according to claim 2 wherein g is 1 and R1 is 

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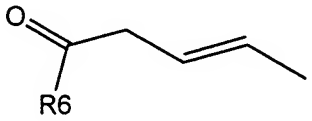
4. A compound according to claim 2 wherein g is 1 and R1 is



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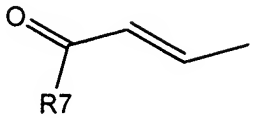
5. A compound according to claim 2 wherein R1 is 

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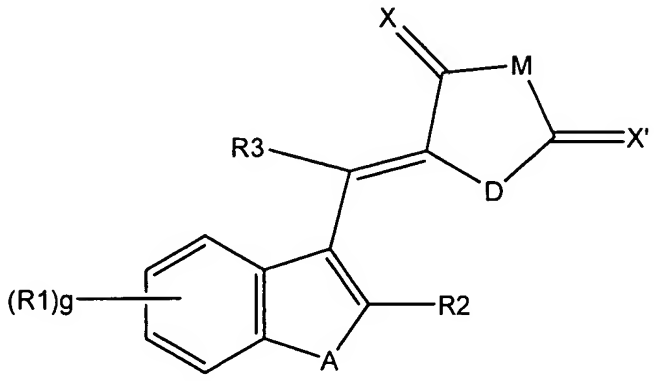
6. A compound of formula II



II

and pharmaceutically acceptable salts thereof, wherein

A, D and M are independently NR, O or S;

R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl;

g is 0, 1, 2, 3 or 4; and

X and X′ are independently O or S;

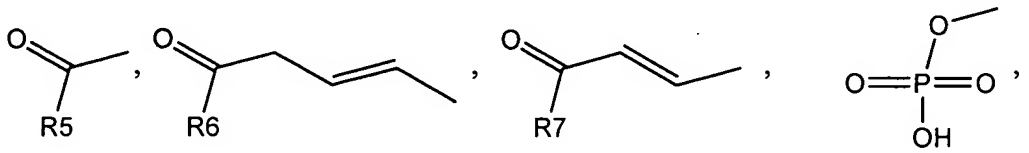
R1, R2 and R3 are independently selected from:

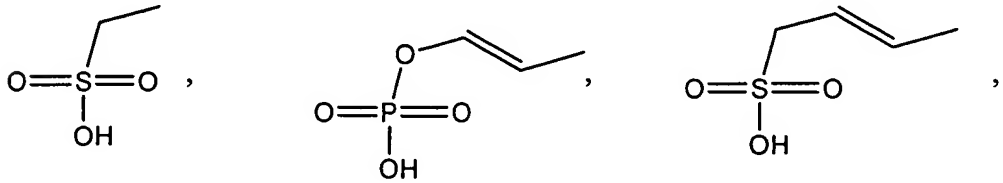
(i) hydrogen, C_1 to C_5 alkyl, OH, NH_2, C_1 to C_5 alkylamino, di(C_1 to C_5 alkyl)amino, C_1 to C_5 alkylcarbonyl, C_1 to C_5 alkyloxycarbonyl, C_1 to C_5 alkylcarbonyloxy, carboxyl, C_1 to C_5 alkyl phosphonate, C_1 to C_5 alkenyl phosphonate, C_1 to C_5 alkyl phosphate, C_1 to C_5 alkenyl phosphate, C_1 to C_5 alkyl sulfonate, C_1 to C_5 alkenyl sulfonate, halo, halo(C_1 to C_5)alkyl, amino(C_1 to C_5)alkyl, hydroxyl(C_1 to C_5)alkyl, (C_1 to C_5)alkoxyl) C_1 to C_5 alkyl, NO_2, C_1 to C_5 alkylthio, SO_3H, PO_4, PO_3H, NH_4, C_2 to C_5 alkenyl, C_2 to C_5 alkenyloxy, C_2 to C_4 alkenylamino, di(C_2 to C_5 alkenylcarbonyl), C_2 to $C5_4$ alkenyloxycarbonyl, C_2 to C_4 alkylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkenyl, hydroxy(C_2 to C_5)alkenyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkenyl, C_2 to C_5 alkenylthio, C_2 to C_4 alkynyl, C_2 to C_5 alkynyloxy, C_2 to C_5 alkynylamino, di(C_2 to C_5 alkynyl)amino, C_2 to C_5 alkynylcarbonyl, C_2 to C_5 alkynyloxycarbonyl, C_2 to C_5 alkynylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkynyl, hydroxy(C_2 to C_5)alkynyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkynyl;

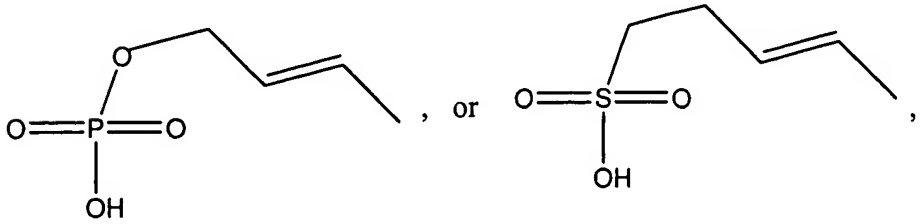
(ii) C_1 to C_5 alkoxy; and

(iii) aryl and arylalkyl.

7. A compound of formula II according to claim 6, wherein R1 represents a residue of the A compound of formula I according to claim 1, wherein R1 represents a residue of the formula

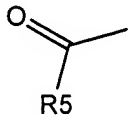




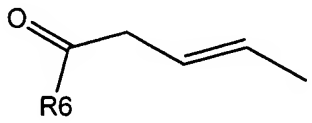


wherein R5, R6 and R7 are independently selected from H, OH, NR_2, NR_3, and R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl.

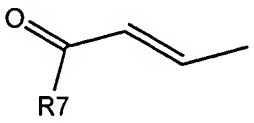
8. A compound according to claim 7 wherein g is 1 and R1 is



9. A compound according to claim 7 wherein g is 1 and R1 is



10. A compound according to claim 7 wherein g is 1 and R1 is



11. A compound according to claim 1 selected from the group consisting of:

1, 2-dihydro-1-oxobenzofuro[2,3-c]pyridine-7-carboxylic acid;

1,2-dihydro-1-oxobenzofuro[2,3-c]pyridine-6-carboxylic acid;

(2E)-3-(1,2-dihydro-1-oxobenzofuro[2,3-c]pyridin-6-yl)acrylic acid; and

1,2-dihydro-1-oxobenzofuro[2,3-c]pyridine-8-carboxylic acid.

12. A compound according to claim 6 selected from the group consisting of:

(Z)-5-((1H-indol-3-yl)methylene)-2-thiooxazolidin-4-one;

(Z)-5-((1H-indol-3-yl)methylene)oxazolidine-2,4-dione;

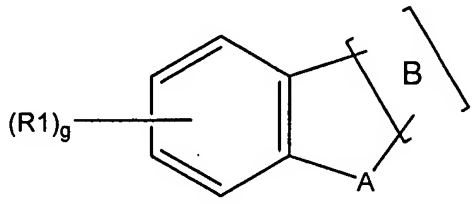
(Z)-5-((1H-indol-3-yl)methylene)thiazolidine-2,4-dione;

(Z)-5-((1H-indol-3-yl)methylene)-2-thiothiazolidin-4-one, and

pharmaceutically acceptable salts thereof.

13. A method of treating a central nervous system (CNS) disorder associated with the striatal region of the brain, the method comprising:

administering an effective dose of a pharmaceutical formulation comprising a compound of formula I to a patient in need thereof exhibiting symptoms of a CNS disorder so as to attenuate said symptoms, wherein formula I is



I

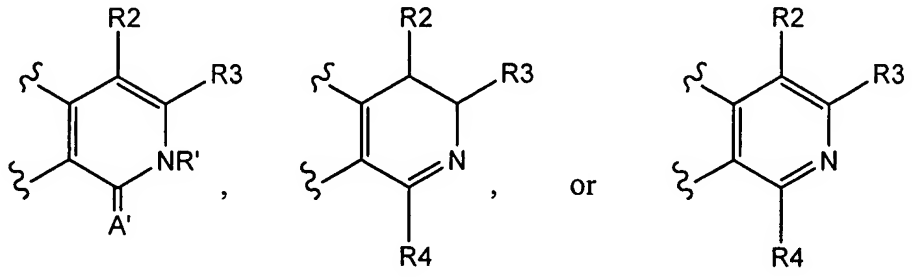
and pharmaceutically acceptable salts thereof, wherein

A is NR, O or S;

R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl;

g is 0, 1, 2, 3, or 4; and

B is a ring forming a fused ring system with the ring containing A and is selected from;



wherein A′ is as described above for A and NR′ is as described above for NR,

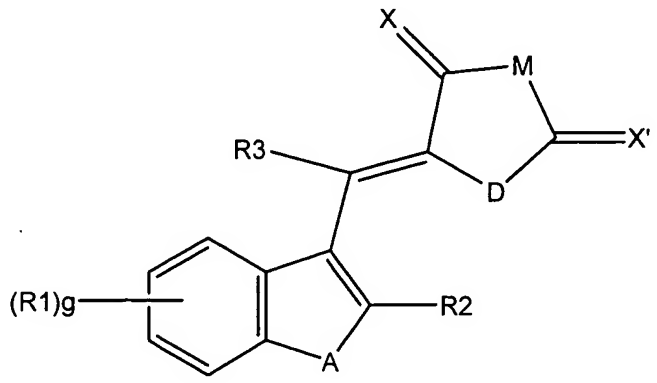
R1, R2, R3 and R4 are independently selected from:

(i) hydrogen, C_1 to C_5 alkyl, OH, NH_2, C_1 to C_5 alkylamino, di(C_1 to C_5 alkyl)amino, C_1 to C_5 alkylcarbonyl, C_1 to C_5 alkyloxycarbonyl, C_1 to C_5 alkylcarbonyloxy, carboxyl, halo, halo(C_1 to C_5)alkyl, amino(C_1 to C_5)alkyl, hydroxyl(C_1 to C_5)alkyl, (C_1 to C_5)alkoxyl) C_1 to C_5 alkyl, NO_2, C_1 to C_5 alkylthio, SO_3H, PO_4, PO_3H, NH_4, C_2 to C_5 alkenyl, C_2 to C_5 alkenyloxy, C_2 to C_4 alkenylamino, di(C_2 to C_5 alkenylcarbonyl), C_2 to $C5_4$ alkenyloxycarbonyl, C_2 to C_4 alkylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkenyl, hydroxy(C_2 to C_5)alkenyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkenyl, C_2 to C_5 alkenylthio, C_2 to C_4 alkynyl, C_2 to C_5 alkynyloxy, C_2 to C_5 alkynylamino, di(C_2 to C_5 alkynyl)amino, C_2 to C_5 alkynylcarbonyl, C_2 to C_5 alkynyloxycarbonyl, C_2 to C_5 alkynylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkynyl, hydroxy(C_2 to C_5)alkynyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkynyl;

(ii) C_1 to C_5 alkoxy; and

(iii) aryl and arylalkyl.

13. A method for treating a central nervous system (CNS) disorder associated with the striatal region of the brain, the method comprising administering an effective dose of a pharmaceutical formulation comprising a compound of formula II to a patient in need thereof exhibiting symptoms of a CNS disorder so as to attenuate said symptoms, wherein formula II is



II

and pharmaceutically acceptable salts thereof, wherein

A, D and M are independently NR, O or S;

R is hydrogen, C_1 to C_5 alkyl, C_1 to C_5 acyl, C_1 to C_5 alkyloxycarbonyl, C_2 to C_5 alkenyl, C_2 to C_5 alkenylcarbonyl or C_2 to C_5 alkenyloxycarbonyl;

g is 0, 1, 2, 3 or 4; and

X and X′ are independently O or S;

R1, R2 and R3 are independently selected from:

(i) hydrogen, C_1 to C_5 alkyl, OH, NH_2, C_1 to C_5 alkylamino, di(C_1 to C_5 alkyl)amino, C_1 to C_5 alkylcarbonyl, C_1 to C_5 alkyloxycarbonyl, C_1 to C_5 alkylcarbonyloxy, carboxyl, halo, halo(C_1 to C_5)alkyl, amino(C_1 to C_5)alkyl, hydroxyl(C_1 to C_5)alkyl, (C_1 to C_5)alkoxyl) C_1 to C_5 alkyl, NO_2, C_1 to C_5 alkylthio, SO_3H, PO_4, PO_3H, NH_4, C_2 to C_5 alkenyl, C_2 to C_5 alkenyloxy, C_2 to C_4 alkenylamino, di(C_2 to C_5 alkenylcarbonyl), C_2 to $C5_4$ alkenyloxycarbonyl, C_2 to C_4 alkylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkenyl, hydroxy(C_2 to C_5)alkenyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkenyl, C_2 to C_5 alkenylthio, C_2 to C_4 alkynyl, C_2 to C_5 alkynyloxy, C_2 to C_5 alkynylamino, di(C_2 to C_5 alkynyl)amino, C_2 to C_5 alkynylcarbonyl, C_2 to C_5 alkynyloxycarbonyl, C_2 to C_5 alkynylcarbonyloxy, halo(C_2 to C_5)alkynyl, amino(C_2 to C_5)alkynyl, hydroxy(C_2 to C_5)alkynyl, (C_1 to C_5 alkoxy) C_2 to C_5 alkynyl;

(ii) C_1 to C_5 alkoxy; and

(iii) aryl and arylalkyl.

14. A method for treating a CNS disorder according to either claim 12 or 13, wherein the CNS disorder is psychosis, schizophrenia, or obsessive-compulsive disorder.

15. A method for modulating PDE10A expression in a subject, the method comprising:

administering a compound of formula I of formula II as claimed in either claim 1 or claim 6 in a pharmaceutical formulation;

measuring isolated PDE10A mRNA from a sample of blood from the patient using a quantitative replicative procedure such as QPCR; and

comparing the level of isolated mRNA from blood from the subject before and after administering the compound of formula II.

16. A method for modulating PDE10A according to claim 15, wherein the compound of formula I or formula II is selected from the group consisting of: 1, 2-dihydro-1-oxobenzofuro[2,3-c]pyridine-7-carboxylic acid; 1,2-dihydro-1-oxobenzofuro[2,3-c]pyridine-6-carboxylic acid; (2E)-3-(1,2-dihydro-1-oxobenzofuro[2,3-c]pyridin-6-yl)acrylic acid; 1,2-dihydro-1-oxobenzofuro[2,3-c]pyridine-8-carboxylic acid; (Z)-5-((1H-indol-3-yl)methylene)-2-thiooxazolidin-4-one; (Z)-5-((1H-indol-3yl)methylene)oxazolidine-2,4-dione; (Z)-5-((1H-indol-3-yl)methylene)thiazolidine-2,4-dione; (Z)-5-((1H-indol-3-yl)methylene)-2-thiothiazolidin-4-one, and pharmaceutically acceptable salts thereof.

17. A method of inhibiting PDE10A according to claim 15, wherein modulating further comprises inhibiting.